

ABSTRACT

An electronic price label (ESL) system providing an intelligent data bedcheck of an ESL. In one aspect, the ESL includes a plurality of registers for storing information controlling the content and formatting of the information displayed. A host computer system includes an ESL data file comprising a data image of the ESL's registers. To perform an intelligent data bedcheck of an ESL, the host computer determines the portions of the ESL's registers which are currently used to control the display of information by the ESL. The host computer then calculates one or more sumchecks of the data which is stored in the determined registers, and transmits one or more bedcheck messages including the sumchecks to the ESL. The ESL receives each bedcheck message and compares each received sumcheck with a sumcheck calculated using the information stored in the ESL's registers which are associated with each sumcheck. For each received sumcheck, if the received sumcheck matches the sumcheck calculated using the information stored in the ESL's registers, the ESL transmits a positive acknowledgement message to the host computer. If the received sumcheck does not match the sumcheck calculated using the information stored in the plurality of registers, the ESL transmits a negative acknowledgment message to the host computer, and the host computer then transmits one or more messages to the ESL updating the registers associated with the failed bedcheck with the data contained in the ESL data file.